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ABSTRACT

Mastery motivation is considered important because it promotes competence and is believed to be the precursor to achievement motivation. Focusing on toddlers between 16 and 22 months old, this study examined the relationship between mastery motivation and environmental contributors, such as maternal expectations, and cultural orientation in Puerto Rican and Dominican mothers. The study's goal was to determine how factors in the socializing environment contribute to children's mastery motivation. Participating were 46 mother-child dyads in Bronx, New York: 35 Puerto Rican and 12 Dominican dyads. Mothers ranged in age from 17 to 44; the majority were born in the United States; mothers had an average education level of 12 years, and an average of 2.53 children in the families. Mastery motivation behaviors were assessed using the Individualized Assessment for Mastery Motivation and the Dimensions of Mastery Questionnaire. Mothers also completed questionnaires assessing their child's development, their expectations, their attitudes regarding individualism-collectivism to assess their cultural orientation, and other aspects of family life. Findings indicated that the children exhibited levels of object-oriented persistence comparable to those in past research. The Puerto Rican mothers appeared to value and encourage their children more highly in the social than the object domain. Very few relationships between object-oriented mastery motivation variables and maternal characteristics and expectations were confirmed for the sample as a whole. The difference in findings obtained for the two groups suggests that Latino groups should be examined separately. (Contains 34 references.) (KB)

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Toddler's Mastery Motivation and Maternal Expectations: Urban Puerto Rican and Dominican mothers and children

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INTRODUCTION

Mastery motivation is the inherent drive which leads children to explore and gain control of their immediate environment as well as the people and objects in it (Barrett & Morgan, 1995). Mastery motivation occurs without any external reward (Busch-Rossnagel, 1997). This drive is particularly important because it promotes competence (Barrett & Morgan, 1995), and is believed to be the precursor to achievement motivation, seen when children reach school age (Dweck & Elliott, 1983). Persistence at moderately difficult tasks is the traditional indicator of mastery motivation which involves at least two domains: interactions with objects and interactions with people. Mastery motivation may be categorized by both instrumental (persistence) and expressive behaviors (pleasure).

This study focused on toddlers between the ages of 16 and 22 months, which is a hypothesized transition period in the expression of mastery motivation. During this time children's preferences change from engagement with simple tasks to those requiring multiple steps to achieve completion. At the same time, they show a preference for tasks which are moderately difficult, as well as a desire to complete tasks without assistance (Barrett & Morgan, 1995). Additionally, children exhibit a growing awareness of external standards.

Mastery motivation is assumed to be intrinsic, but it is not immune to environmental influence (Harter, 1978; Hunt, 1965; White, 1959). Barrett & Morgan (1995) suggested that the individual differences seen in mastery motivation are most likely the results of the interaction between biology and environment. Hunt (1965) believed that mastery motivation could not develop without high quality infant-environment interaction. Harter (1978) stated that the socializing environment was of particular importance, and Busch-Rossnagel, Knauf-Jensen, & DesRosiers (1995) expanded on Harter's discussion by stating that the socializing environment

involves objects, persons, and relationships which have an effect on a toddler's emerging skills. This study focused specifically on the transmission of information within the family setting, which is the primary learning environment for children of this age (Maccoby & Martin, 1983). In particular, a mother, as a child's first teacher, influences a child's expression of mastery motivation.

Maternal expectations are an important part of the socializing environment. Mothers differ not only in the goals they have for their children, but also in how such goals will be implemented. Maternal expectations of the skills, abilities, and behaviors that her child should possess are reflected in the childrearing practices a mother employs. Just as mastery motivation is subject to environmental influence, maternal expectations are influenced by socialization goals valued in the mother's culture.

Parents acquire ideas about child development from multiple sources in their environment: community norms, "expert" opinions, and observations of other children (Hess, Kashiwagi, Azuma, Price, & Dickson, 1980; Solomon, 1993). The mother's family, friends, and acquaintances (i.e., her social network) are of particular importance, influencing her childrearing values, beliefs, and strategies. A mother's expectations reflect what others in her culture expect of her parenting and the behaviors and skills she should instill in her children (Solomon, 1993). Thus, individual parent's expectations are formulated from their ideas about the skills, behaviors, and competencies that are valued and necessary for success in their culture, i.e. characteristics they would like to see in their children (Goodnow, Cashmore, Cotton, & Knight, 1984; Solomon, 1993).

Culture is likely to play a role in how mastery motivation is exhibited, as well as how it develops and whether it is valued (Busch-Rossnagel, Vargas, Knauf & Planos, 1993). The

search for universal and culture-specific psychological processes has been a major part of developmental research (Goodnow, 1990; Rogoff & Chavajay, 1995; Rogoff & Morelli, 1989). When the results of mastery motivation assessment of a sample of 17 Latino children were compared with previously generated age norms from Euro-American samples, few differences in mastery motivation were found (Busch-Rossnagel et al., 1993). However, one goal of this study was to further investigate the possible effects of cultural orientation on mastery motivation without reliance on ethnicity as a categorical variable, thus, individual cultural orientations were considered.

The present study focused on Puerto Rican and Dominican mothers and their toddlers. There is a lack of good research with minority populations in the United States, but this is especially true of Latino groups (Busch-Rossnagel, 1992). Examining mastery motivation in Latino groups is important because achievement motivation in these populations is low, making it imperative to investigate the origins of current levels of academic performance in Puerto Rican and Dominican children (Nielsen, 1986). Latino groups in the United States do not achieve scores commensurate with children of other groups on indices of academic achievement (Fracasso & Busch-Rossnagel, 1992). Additionally, Latinos do not complete as many years of school as members of other ethnic groups, with the current median education level of 12 years of school, but without a high school diploma (ASPIRA, 1993). It is difficult to know what correlates exist for this level of performance, but investigation is warranted.

The present project attempted to study the relationship between mastery motivation and environmental contributors, such as maternal expectations for children and cultural orientation in two groups of Latinos. The goal was to determine how factors in the socializing environment contributed to children's mastery motivation.

METHOD

Participants

Forty-seven mother-child dyads living in Bronx, New York were recruited from the Hunt's Point Head Start program and the Montefiore Women, Infants and Children (WIC) program. The sample included 35 Puerto Rican and 12 Dominican dyads. Mothers ranged in age from 17 to 44 ($\underline{M}$ = 28.34) with an average education level of 12 years (Range = 3 - 16). The majority were United States-born (55%, $\underline{n}$ = 25), with the balance coming from Puerto Rico (21%, $\underline{n}$ = 10) and the Dominican Republic (21%, $\underline{n}$ = 10). One mother was born elsewhere, but self-identified as Puerto Rican. All but one of the dyads lived in apartments in Bronx, New York. Mothers reported an average of 2.53 children in their families, $\underline{SD}$ = 1.44. Sociobiographic information is presented in Table 1.

Table 1

Sociobiographic Information by Percentage

VARIABLES	%
MATERNAL EDUCATION BY YEARS	
8 years or less	6
9-11 years	32
12 years	28
13 or more	34
INCOME	
≤$9,999	51
$10,000-$19,999	11
≥$20,000	12
Chose not to respond	26
BIRTHPLACE	
United States	55
Puerto Rico	21
Dominican Republic	21
Other	3
PREFERRED LANGUAGE	
English	57
Spanish	43

Measures

Mastery motivation behaviors were assessed using the Individualized Assessment for Mastery Motivation for 15 to 36 month old children (Morgan, Busch-Rossnagel, Maslin-Cole, & Harmon, 1992) and the Dimensions of Mastery Questionnaire (DMQ-16; Morgan, Knauf-Jensen, Busch-Rossnagel, Barrett, Bartholomew, Tsay, & Harmon, 1997). Mothers also completed five additional paper-and-pencil instruments: (a) the Family Life Questionnaire (FLQ), (b) the Provision of Cognitively Oriented Activities devised by Gaiter, Morgan, Jennings, Harmon, & Yarrow (1982), (c) the Individualism-Collectivism Scale (INDCOLL; Hui, 1988), 4) the Maternal Expectations Assessment measure (MEA; Bobadilla, 1998), and (d) the Children's Development and Skills Questionnaire (CDSQ; Vargas, 1996). The measures are described below.

Individualized Assessment of Mastery Motivation for 15 to 36 month old children. The Individualized Assessment for Mastery Motivation (Morgan et al., 1992) measures a child's independent task-directed persistence with moderately challenging tasks in a structured situation given the child's developmental level. For the assessment, the experimenter led the child through play with two toys: puzzles and shape-sorters. Each task was demonstrated for the child who was then observed interacting with the moderately challenging level of each toy for a 4 minute period. The puzzles included 6 possible levels which range from the very simple (Balloon puzzle with no interlocking pieces, all pieces are the same size, and all pieces fit in all holes) to the very complicated (Face puzzle with interlocking pieces required to create a single face). Only the first two puzzles (Balloon and Traffic Light puzzles) were utilized. The shape-sorter task included 8 possible levels. The most simple shapes are recognizable and symmetrical (e.g., cylinders), while the most complicated shapes are likely to be unfamiliar and asymmetrical

requiring one correct positioning for the shape to fit properly (e.g., 6 pointed stars). This study utilized the first four levels of shapes (circles, squares, triangles and rectangles).

The level of task chosen was judged to be moderately challenging if the child did not complete the task, but managed to solve some of the problem in the first two minutes. If the child completed the task in a minute or less, the task was too simple, and a more difficult task was presented. If the child did not achieve any solution in the first two minutes, the initial level was too hard, and the next lower level was substituted.

Coding involved recording both modal behaviors for each 15 second interval and behavior frequencies. The most common behavior seen in the child during the 15 second episode was coded as the modal behavior. Task persistence (T) was scored in intervals involving behaviors that led or could have led toward a solution. This included resetting a task to begin again. Alternative codes were used when a child was not exhibiting task-directed behaviors such as experimenter and mother-directed behaviors, own-task behaviors, perseverative behaviors, and apparatus-directed behaviors (for complete definitions see Morgan et al., 1992). Frequency codes were used to indicate affect (task pleasure). Task pleasure (+) was scored in T intervals when positive affect was also shown.

Two main scores were computed for each task administered: task persistence and task pleasure. Task persistence equals the sum of the number of intervals marked with a T. Task pleasure equals the sum of the T number of intervals marked with a +. The tasks were coded from videotape to achieve interjudge agreement to insure the reliability of ratings using Cohen's K (Cohen, 1960). On a subsample of 10 participants, two raters achieved a high rate of interjudge agreement on 316 observations (K = .90, inter-rater agreement = 92%).

Dimensions of Mastery Questionnaire. The Dimensions of Mastery Questionnaire (DMQ-16; Morgan et al., 1997; Morgan, Maslin-Cole, Harmon, Busch-Rossnagel, Jennings, Hauser-Cram, & Brockman, 1993) was used to assess adult perceptions of children's mastery behaviors. The questionnaire includes 45 questions which can be answered in about 20 minutes. The DMQ was originally translated into Spanish for use with Latino populations in 1993 (Busch-Rossnagel et al., 1993). The DMQ-16, used in this research, was completed in 1996 incorporating items to assess social persistence and using a preferred translation method known as decentering (Werner & Campbell, 1970; Marín & Marín, 1991). Decentering allows for the creation of instruments which are culturally appropriate and linguistically equivalent. The questions were translated from the original English into Spanish by a bilingual/bicultural translator, then translated back into English by a second translator. This process was repeated and both the English and Spanish versions were altered yielding more comparable instruments (Knauf-Jensen, Busch-Rossnagel, & Morgan, 1997). The English version of the DMQ-16 is written at a 5th grade reading level.

The response format of the DMQ is a 4 point scale ranging from *Not At All Typical of My Child* (1) to *Very Typical of My Child* (4). Seven scales are included, but only four were used in the present study: object-oriented persistence (8 items), mastery pleasure (7 items), social persistence with adults (6 items), and social persistence with children (6 items). Scale scores are obtained by reverse-scoring negative items, summing responses to all questions in the scale and dividing by the number of items in the scale. In the present study, coefficient alphas for the four scales ranged from .39 to .70.

Individualism-Collectivism Scale. Thirteen items from the Individualism-Collectivism measure (INDCOLL; Hui, 1988) were used to assess mothers' cultural orientation. The

INDCOLL was developed for use in cross-cultural research to avoid reliance on the interpretation of individuals as being collectivistic or individualistic merely on the basis of ethnicity or their country of origin according to Hofstede (1980). Rather than relying on the ecological level, the INDCOLL attempts to measure cultural orientation for individuals. According to Hofstede (1980), people differ to the degree of integration they experience with others and their social environment, with individualism and collectivism being poles at opposite ends of the same continuum. Collectivism, or interdependence, is defined as a concern for the effects of one's own acts on others, the sharing of material and emotional resources, and a feeling of involvement in the lives of members of the group (Greenfield, 1994; Knauf, 1998). Individualism, on the other hand, is characterized by a priority on individual goals rather than those of the group, and an emphasis on emotional independence, self-reliance and individual achievement (Hui & Triandis, 1986).

Thirteen items from the parent and kin scales of the INDCOLL were chosen for use in this study as an indication of cultural orientation. Items are answered using a 6-point scale ranging from *Strongly disagree/false* (0) to *Strongly agree/true* (5). Items are scored in the direction of the collectivistic viewpoint, and responses are summed and divided by 13 (the number of items) to achieve a total score ranging from 0 to 5. The alpha for these thirteen items was .75.

Child Development and Skills Questionnaire. Maternal age-related socialization goals were assessed using a revised version of the Child Development and Skills Questionnaire (CDSQ, 6 scales, 45 items; Goodnow, Cashmore, Cotton, & Knight, 1984; Hess, Kashiwagi, Azuma, Price, & Dickson, 1980; Vargas, 1996). The Emotional Maturity scale (4 items) focused on self-control of emotional reactions. The four items comprising the Compliance scale were

concerned with child responses to adult requests and demands. Politeness was assessed with two items, both concerned with manners in the family setting. The Independence scale (7 items) assessed child competence to complete simple tasks and play alone. Seven items were used to ask about Social Skills, including items about game-playing and the resolution of disputes. Lastly, the Verbal Assertiveness scale (6 items) assessed the ability to verbally articulate personal preferences. Mothers were provided with a list of behaviors and asked to note at which of the following ages should a child be capable of such behaviors: before age 2, at age 2 or 3, at age 4 or 5, or at age 6 or later.

Maternal Expectations Assessment. The MEA (Bobadilla, 1998) consists of 24 items comprising 3 scales. It was designed to assess the desirability of certain child behaviors specifically in Dominican and Puerto Rican populations. In this case, mothers were asked to consider the desirability of behaviors for toddlers. The Social Behavior subscale consists of 12 items reflecting situations in which the child attempts to learn about relationships with adults and other children, and is motivated to influence these social interactions in appropriate (e.g., polite and respectful) ways. The 8 items on the Dependence subscale reflect the degree to which the child desires assistance (e.g., eat, dress), as well as their reaction when an adult interferes with their autonomy. The Conformity to Social Norms scale (4 items) reflects the child's compliance with expected behaviors due to socialization (i.e., the child knows what is expected and behaves accordingly whether that be positive or negative). Coefficient alphas for the subscales ranged from .48 to .86, while the MEA had an overall coefficient alpha of .79.

Provision of Cognitively Oriented Activities. To assess the cognitively-oriented activities mothers provide for children in the home, mothers were asked to write a list of the most frequent, routine, current activities, excluding caregiving, that she and other caregivers did with

the child. As originally conceived by Gaiter et al. (1982), if less than four activities were generated, the mother was verbally prompted until at least four were mentioned; this helped to reduce variance due to differences in verbal skills. Additionally, if the activities listed were general in nature, mothers were verbally prompted for specific descriptions. This information was requested at the end of the Family Life Questionnaire.

Activities were categorized into five mutually exclusive groups: (a) adult-assisted activities with objects (such as stacking rings or playing with blocks); (b) activities which encourage the child to imitate adult behaviors (such as feeding a baby); (c) interactions which promote language skills (labeling and pointing to objects, conducting conversations); (d) activities designed to teach the infant to produce/receive feedback (both auditory and visual) from objects (mutual play with busy boxes or pull toys); and (e) nonsocial or non-cognitively oriented activities (such as roughhousing, or allowing the child to play alone). The first four categories were considered to be cognitively oriented. Variety was determined by the number of the four cognitively oriented activity categories mentioned by each participant. Thus, scoring can range from zero (none of the activities mentioned are cognitively oriented) to four (a variety of cognitively oriented activities are reported, at least one in each of the cognitively oriented categories mentioned above). On a subsample of 10 participants, two raters achieved a high rate of interjudge agreement on 50 observations (K = .90, interjudge agreement = 92%).

Family Life Questionnaire. A personal information questionnaire (the Family Life Questionnaire; FLQ) was used to obtain sociobiographical information. Information about ethnicity, education, family income level, as well as the participants' family configuration and living situation was obtained.

Procedure

Appointments were made for visits which took place in the Developmental Laboratory of Fordham University. Informed consent was obtained through use of a form. Assessments of the dyads were completed by bilingual/bicultural experimenters trained by the researchers. All visits were conducted in the language most comfortable for the mother and child, and all instruments were provided in both Spanish and English. At the beginning of the visit, the mother was asked to complete the Family Life questionnaire, while the child was allowed to play with two toys (a pound-a-ball toy and a plastic truck) in order to become comfortable with the laboratory setting.

Mothers completed the additional questionnaires (DMQ, INDCOLL, CDSQ, and MEA) while the child completed the mastery motivation assessment with the experimenter who sat on the floor with the child, while the mother sat behind and to the child's side. Mothers were instructed to refrain from assisting their child and providing instructions. Mothers were also told that if their child handed them a toy, they were to place the toy back in front of the child, rather than to manipulate the toy. Additional tasks not included in these analyses were included with each visit lasting about one and a half hours.

At the end of each visit, mothers were encouraged to discuss any concerns or questions they had. These were answered by the researchers, who then thanked the mothers and children for participating after which they were escorted to the front gate of the university. Many mothers requested copies of the videotape and/or a copy of the completed research project. Videotapes were provided, and summaries are being distributed. Compensation for participation in the study was provided in two ways. First, at the end of the visit, the child received a gift of a children's book for her/his participation. Second, mothers received a cash payment of $20 for participating in the study.

RESULTS

Descriptive results for all variables are presented with mastery motivation measures first. Measures of the socializing environment follow: cultural orientation (INDCOLL), maternal expectations (CDSQ and MEA), and the provision of cognitively-oriented activities. Correlational analyses are presented last. Due to the small number of Dominicans included in this sample, caution is emphasized in terms of the generalizability of the results.

Mastery motivation

With moderately difficult structured tasks, children exhibited persistence approximately half of the time (47.5%) which is comparable to past research (Busch-Rossnagel et al., 1993; Maslin-Cole, Bretherton, & Morgan, 1993). Additionally, Puerto Rican girls showed more persistence than did Puerto Rican boys, but this did not hold true for sample as a whole. Mothers rated DMQ object-oriented persistence items as somewhat typical of what their children did at home, $\underline{M} = 2.63$, $\underline{SD} = .56$. Mothers reported that children typically show mastery pleasure while engaged in mastery tasks at home ($\underline{M} = 3.26$, $\underline{SD} = .43$), while lower levels of pleasure were observed during the structured tasks (5% of the time), $\underline{M} = .78$, $\underline{SD} = 1.15$. Girls were more likely than boys to show mastery pleasure during the Individualized Assessment.

Although structured social tasks using the Individualized Assessment method are not included in these analyses, scale scores were computed for the two DMQ social persistence scales. Mothers viewed their children as relatively persistent in their interactions with adults, $\underline{M} = 2.93$, $\underline{SD} = .52$. In other words, children were interested in engaging adults in conversation and play, as well as maintaining and influencing the course of such interactions. Children were slightly less persistent in their interactions with other children, $\underline{M} = 2.75$, $\underline{SD} = .50$. Due to the recent addition of these scales, comparisons to other samples cannot be made.

Socializing Environment

MATERNAL CULTURAL ORIENTATION

Cultural orientation (INDCOLL) scores fell on a continuum from 0 (individualistic) to 5 (collectivistic). The mean for this sample was 3.01, SD = .77. Participants endorsed collectivistic values, although not at the most strong level. In this sample, Puerto Ricans appeared to be more collectivistic than Dominicans on items discussing intimate family relationships and the role of the extended family.

MATERNAL EXPECTATIONS

Child Development and Skills Questionnaire. CDSQ scale analyses showed that mothers expect politeness and compliance from children at about age 2, emotional maturity and social skills by age 3, and verbal assertiveness by age 4. Maternal age expectations pertaining to object-oriented persistence, social persistence and manners are presented in Table 2.

Table 2

Maternal Expectations for Selected CDSQ Items

AGE EXPECTATION
Before Age 2
Checks to determine mom is nearby while playing.
At Age 2 or 3
Shares toys with other children.
Can entertain him/herself alone.
Greets family courteously.
Takes initiative in playing with others.
Addresses adults in a well-educated manner, such as using "please" and "thank you."
Stops misbehaving when told.
Initiates games with adults.
Tries to imitate familiar adults.
Can disagree without resorting to kicking or biting.

Table 2 continued

At Age 2 or 3

Can wait turn in games.
Sympathetic to the feelings of other children.
Can write own name.
Handles disappointment without crying.

At Age 4 or 5

Uses persuasion with friends to get things done in own way.
Answers the phone properly.
Can resolve disagreements without fighting.
Stands up for own rights with others.
Takes care of own clothes.
Stops own activity to help mother.
Resolves quarrels without help from adults.
Does common household tasks (for example, dusts furniture).
Plays outside without supervision.

Maternal Expectations Assessment. MEA results indicate that mothers found all of the behavior categories desirable for their toddlers (ages 16-22 months) participating in the study: 80% of mothers found Appropriate Social Behaviors to be desirable, while 77% were concerned with Conformity to Social Norms. Dependent behaviors were viewed as desirable by 69% of the participants.

Provision of cognitively oriented activities. When mothers were prompted for non-caregiving activities provided for children in the home, mothers mentioned activities involving the imitation of adult behaviors (cited by 22 mothers) and the promotion of language skills (cited by 12 mothers) most frequently. Mothers mentioned that they provided at least two of the four categories of cognitively oriented activities for the child in the home, $M = 2.11$, $SD = .94$. In a study conducted with 40 middle class mothers (Gaiter et al., 1982), the mean was 2.72 ($SD = 1.04$). The diversity of cognitively oriented activities provided by caregivers in the Gaiter et al.

study was correlated with persistence at tasks, r (38) = .37 at the age of 12 months. However, no correlation was found for this sample, r = -.13, ns.

Correlational analyses

CORRELATIONAL ANALYSES FOR PUERTO RICAN SUBSAMPLE

While the number of Dominicans participating in the study was too small for separate correlational analyses to be meaningful (n = 12), correlational results for the Puerto Rican portion of the sample (n = 35) were possible. Significant correlations among the components of mastery motivation were found (see Table 3).

Table 3

Significant Intercorrelations Among Mastery Motivation Measures for Puerto Ricans

MEASURE	1	2	3	4	5	6
1. Object Persistence		.33*	.44**			
2. DMQ Obj. Persistence			.39*			
3. Mastery Pleasure						
4. DMQ Mastery Pleasure						
5. Social Persistence - Adult						.34**
6. Social Persistence - Child						

n = 35, *$p \leq .05$, **$p \leq .01$

Correlations between Mastery Motivation and the Socializing Environment. For Puerto Ricans, significant correlations between mastery motivation variables and elements of the socializing environment were also found (see Table 4). High levels of object persistence on structured tasks were positively correlated with Social Skills age expectations on the CDSQ (r = .42, p = .02), while DMQ persistence was correlated with high desirability for Social Behaviors on the MEA (r = .37, p = .03). In terms of mastery pleasure on the structured tasks, a mother's preferred language was correlated (r = -.41, p = .01). The children of mothers who

preferred to speak Spanish showed lower levels of mastery pleasure during the Individualized Assessment. DMQ mastery pleasure was also positively correlated with the number of adults living in the home ($r = .35$, $p = .04$), and it was associated with higher levels of maternal education ($r = .55$, $p = .001$).

Table 4

Significant Correlations between Mastery Motivation and the Socializing Environment for Puerto Ricans

	SOCIALIZING ENVIRONMENT			
MASTERY MOTIVATION	Age Expectations-Social Skills	Desirability – Social Behaviors	Maternal Education Level	Number of Adults in the Home
Task Persistence (Ind. Assessment)	.42*			
DMQ Task Persistence		.37*		
Mastery Pleasure (Ind. Assessment)				
DMQ Mastery Pleasure			.55**	.35*

$n = 35$, *$p \leq .05$, **$p \leq .01$

Maternal Expectations. In terms of maternal expectations, an interesting picture appears. Mothers born in the mainland United States expected Child Compliance, Social Skills and Verbal Assertiveness (CDSQ scales) at a later age than mothers born in Puerto Rico ($r = -.46$, $p = .07$; $r = -.34$, $p = .05$; $r = -.33$, $p = .06$, respectively). Additionally, mothers who scored as more collectivistic in cultural orientation expected Social Skills at an earlier age than individualistic mothers, $r = -.31$, $p = .08$. Collectivistic mothers also viewed Social Behaviors as extremely desirable on the MEA, $r = .30$, $p = .09$. Mothers who provided a greater variety of

cognitively oriented activities expected Politeness and Independence from their children at a later age (r = .40, p = .02; r = .33, p = .06). These same age expectations were negatively correlated with the number of adults in the home (r = -.30, p = .09; r = -.29, p = .10). The same held true for the number of adults and age expectations for Social Skills, r = -.47, p = .006.

CORRELATIONAL ANALYSES FOR ENTIRE SAMPLE

Correlational analyses for the sample as a whole (N = 47, Dominicans included) revealed no significant correlations between mastery motivation variables and maternal contributors to the socializing environment. However, other correlations of note are reported below. Maternal expectations as assessed by the CDSQ and the MEA were correlated with some maternal and family variables for the entire sample. The Compliance, Politeness and Social Skills CDSQ scale scores were negatively correlated with maternal educational level (r = -.27, p = .09; r = -.29, p = .06; r = -.27, p = .07, respectively). Additionally, the number of adults in a household had a direct impact on maternal expectations: the more adults there were, the earlier age at which Social Skills and Verbal Assertiveness were expected (r = -.42, p = .005; r = -.25, p = .10). In addition, the more adults there were in the household, the less desirable Conformity to Social Norms is for toddlers, r = -.25, p = .09. These results confirm previous research (Solomon, 1993).

DISCUSSION

The Puerto Rican and Dominican children in this study exhibited comparable levels of object-oriented persistence to that shown in past research, which provides us with new information about mastery motivation in Latino groups. There was also confirmation for the Puerto Rican portion of the sample that factors of the socializing environment exerted influence

on the expression of mastery motivation as has been found previously with other groups (Barrett & Morgan, 1995).

However, the Puerto Rican mothers also appeared to more highly value and encourage their children in the social domain rather than the object domain. This is in keeping with a collectivistic value orientation in that interactions with other people are very important. Perhaps fostering good social skills is viewed as more important at the toddler age than encouraging independence, competence, and thus, the ability to work on a cognitively oriented task independently. While mastery motivation is viewed as important in individualistic cultures, and fostered at this age with an eye toward the child's acquisition of school skills, these skills may be viewed as too advanced for toddlers or are valued less highly by this group of mothers.

Unfortunately, very few relationships between object-oriented mastery motivation variables and maternal characteristics and expectations were confirmed for the sample as a whole (when Dominicans were included). Given past research on contributing factors in the socializing environment, this is surprising (Barrett & Morgan, 1995; Barrett et al., 1993; Gaiter et al., 1982). Perhaps other aspects of the socializing environment exerted influence for these families, or perhaps object-oriented persistence was not valued, expected or fostered for toddlers.

Admittedly, this study included a relatively small sample from a very select population, and because of this the project raises more questions than it answers. Would a more diverse sample reveal an alternate picture? The differing results for Dominicans suggest that Latino groups should be examined separately, and additional research would be needed. Is individual persistence valued by these populations, and if so, at what age? What factors of the socializing environment are important to these populations? These questions are worth pursuing if the questions about academic achievement and school performance are to be answered.

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